

FIG. 1

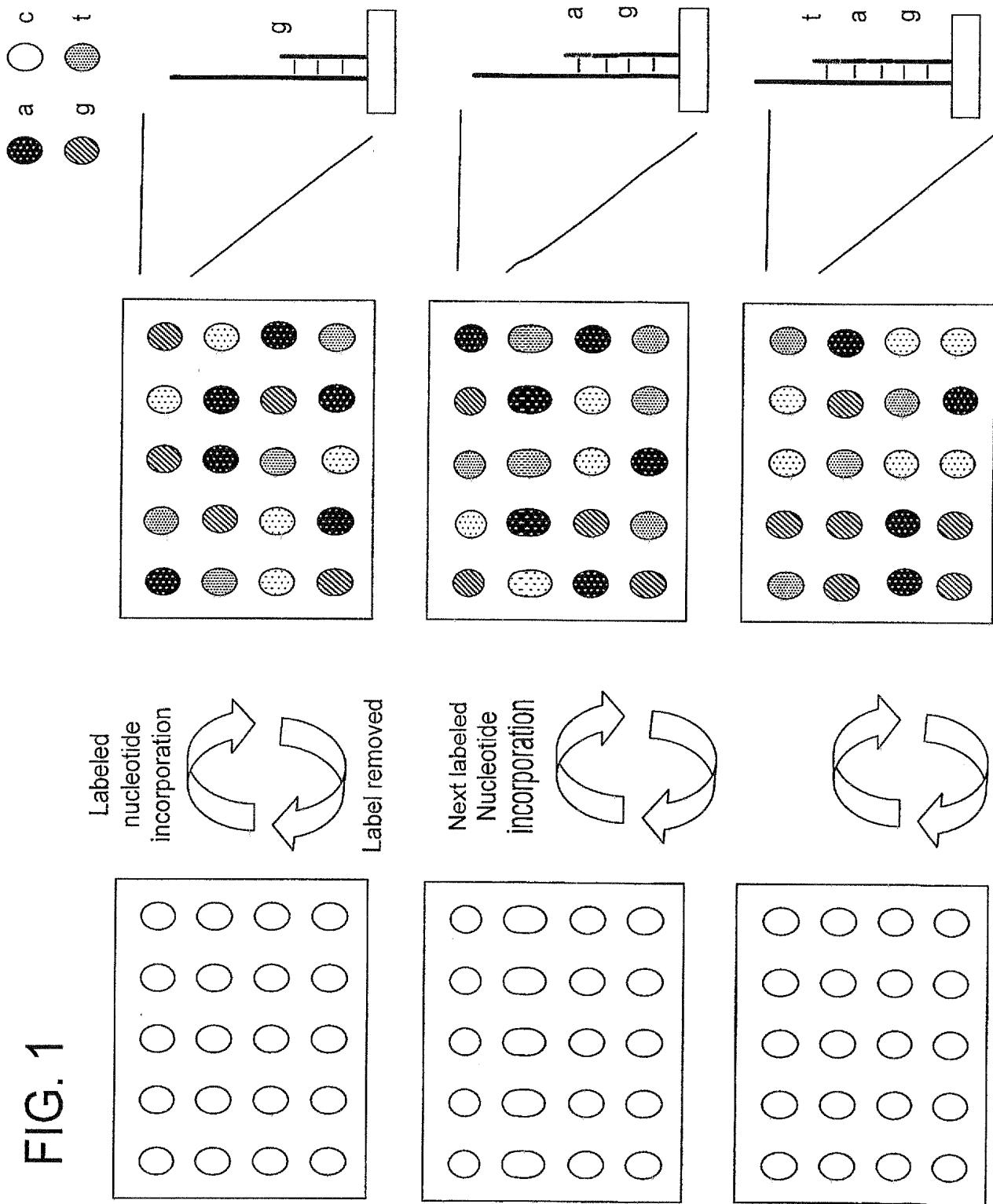
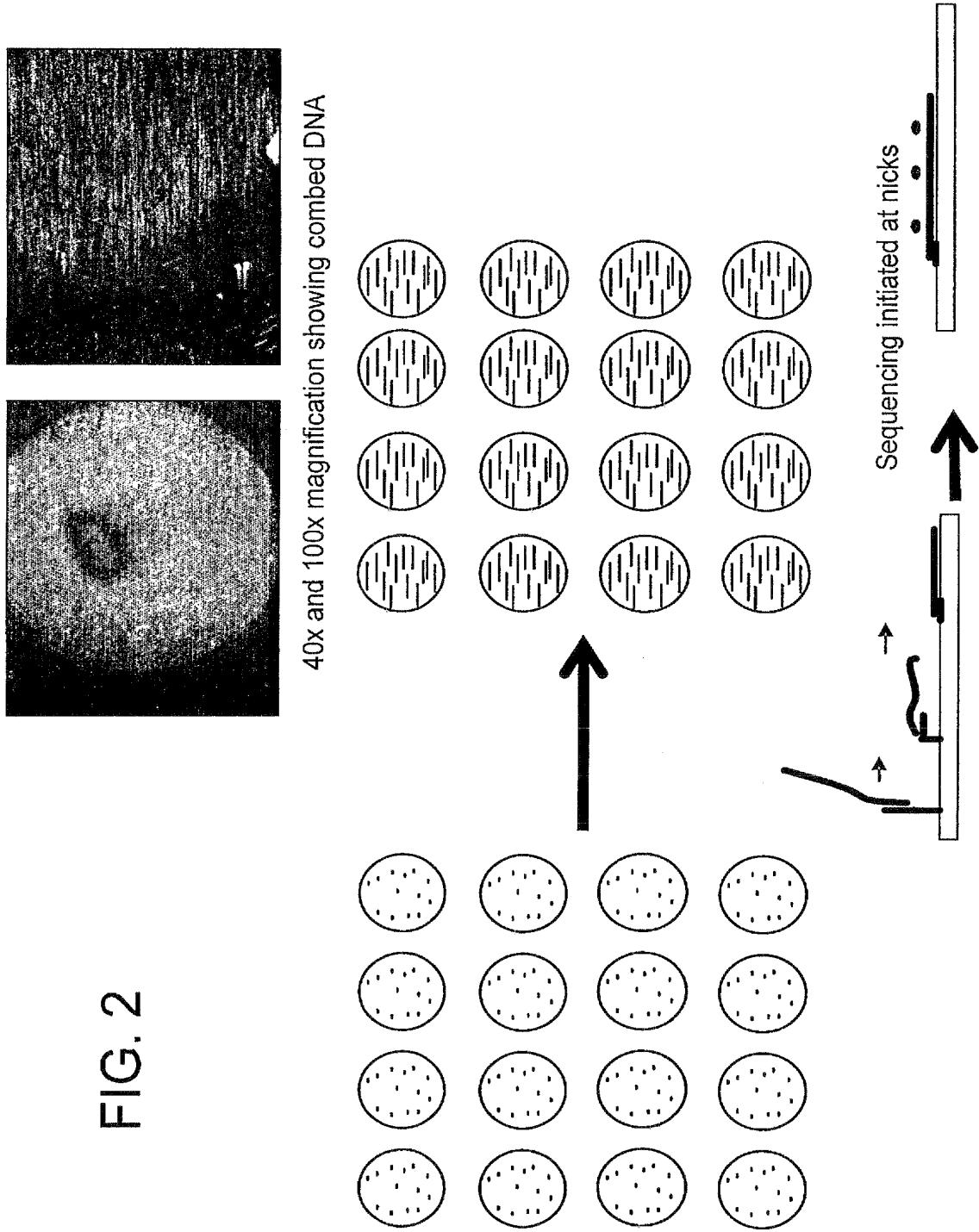


FIG. 2



Cleavable linker

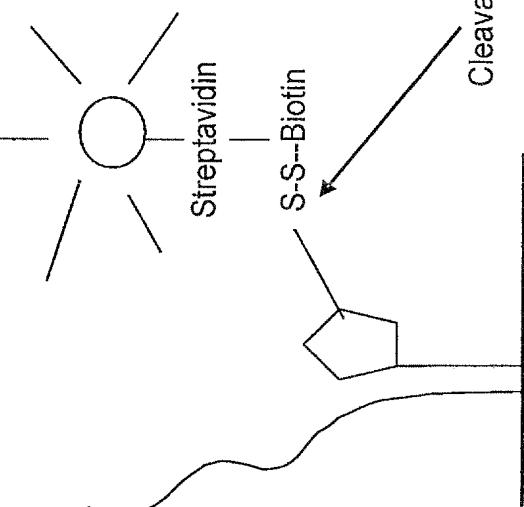
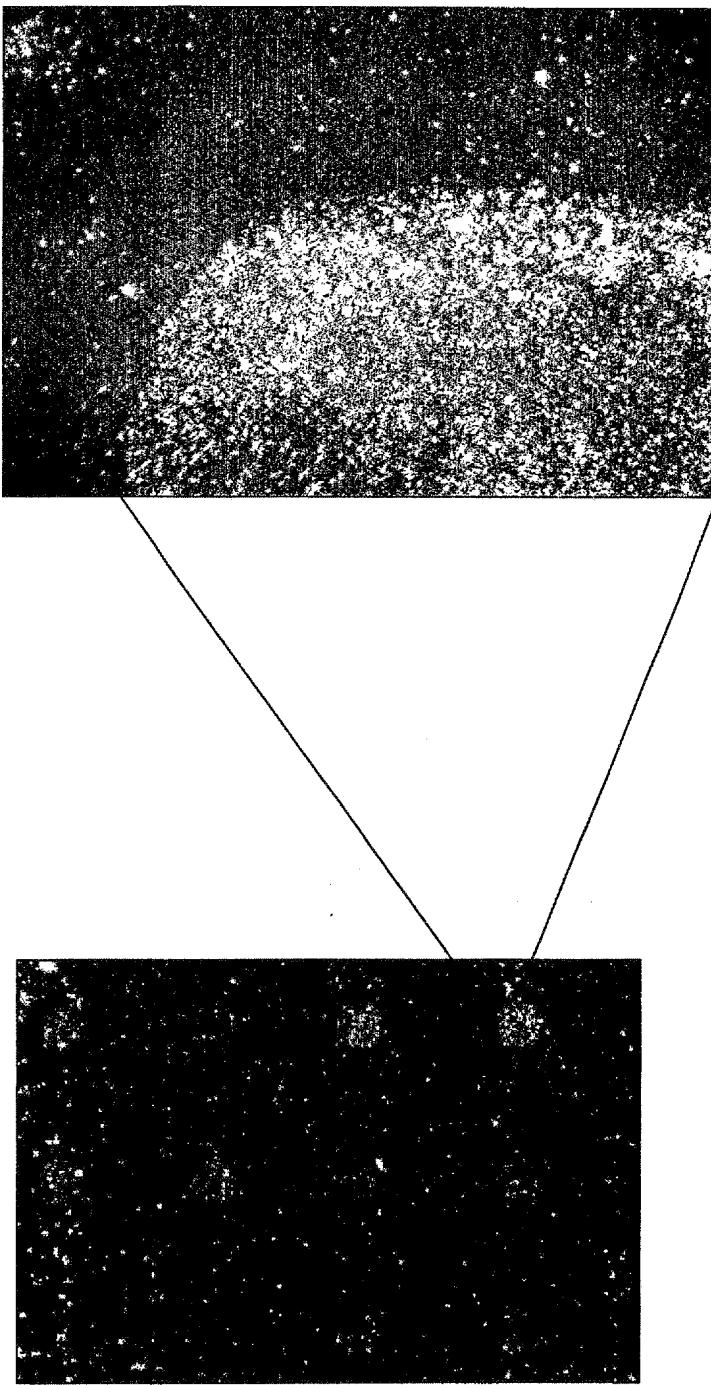


FIG. 3



Add nucleotide
labelled with Nanoparticle → Detect
terminator via S-S bond

Add
reducing
agent

→ Detect and
Check removal

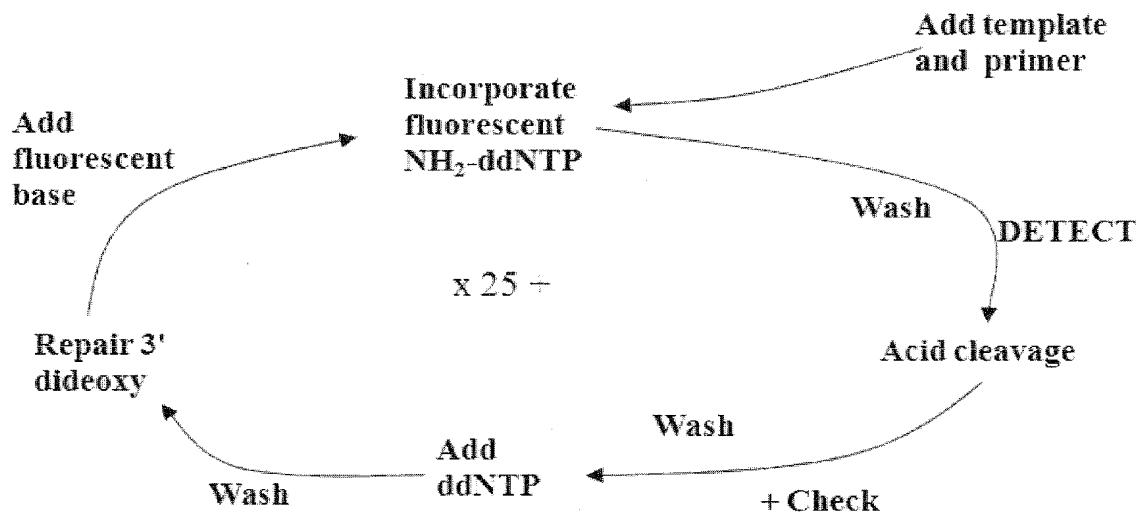
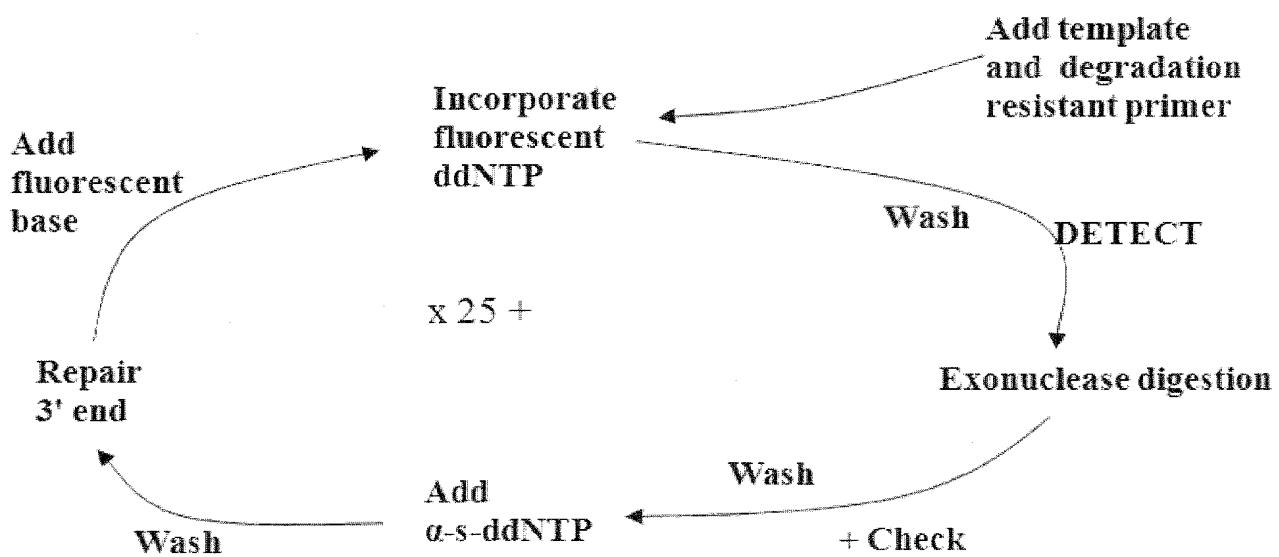
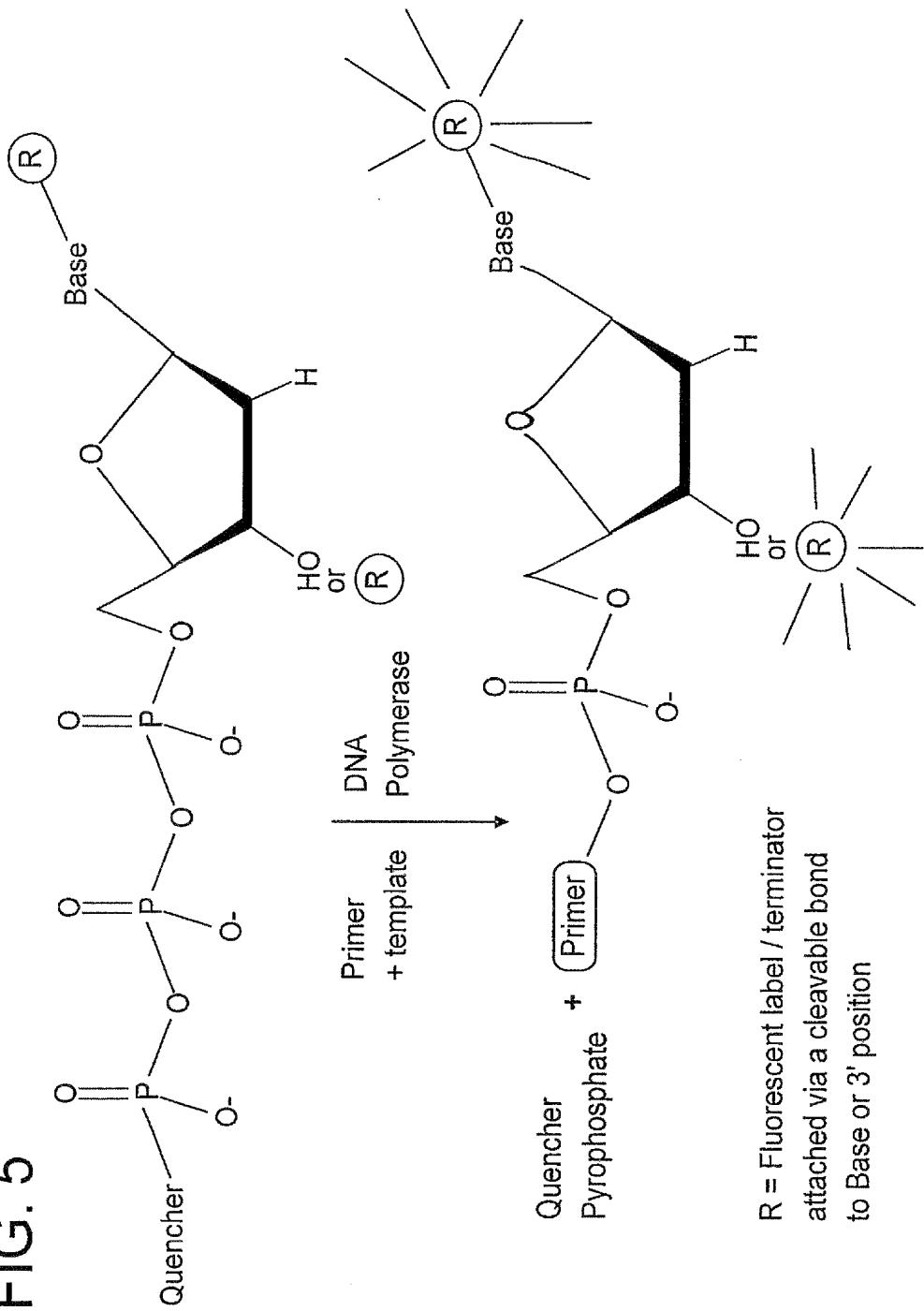
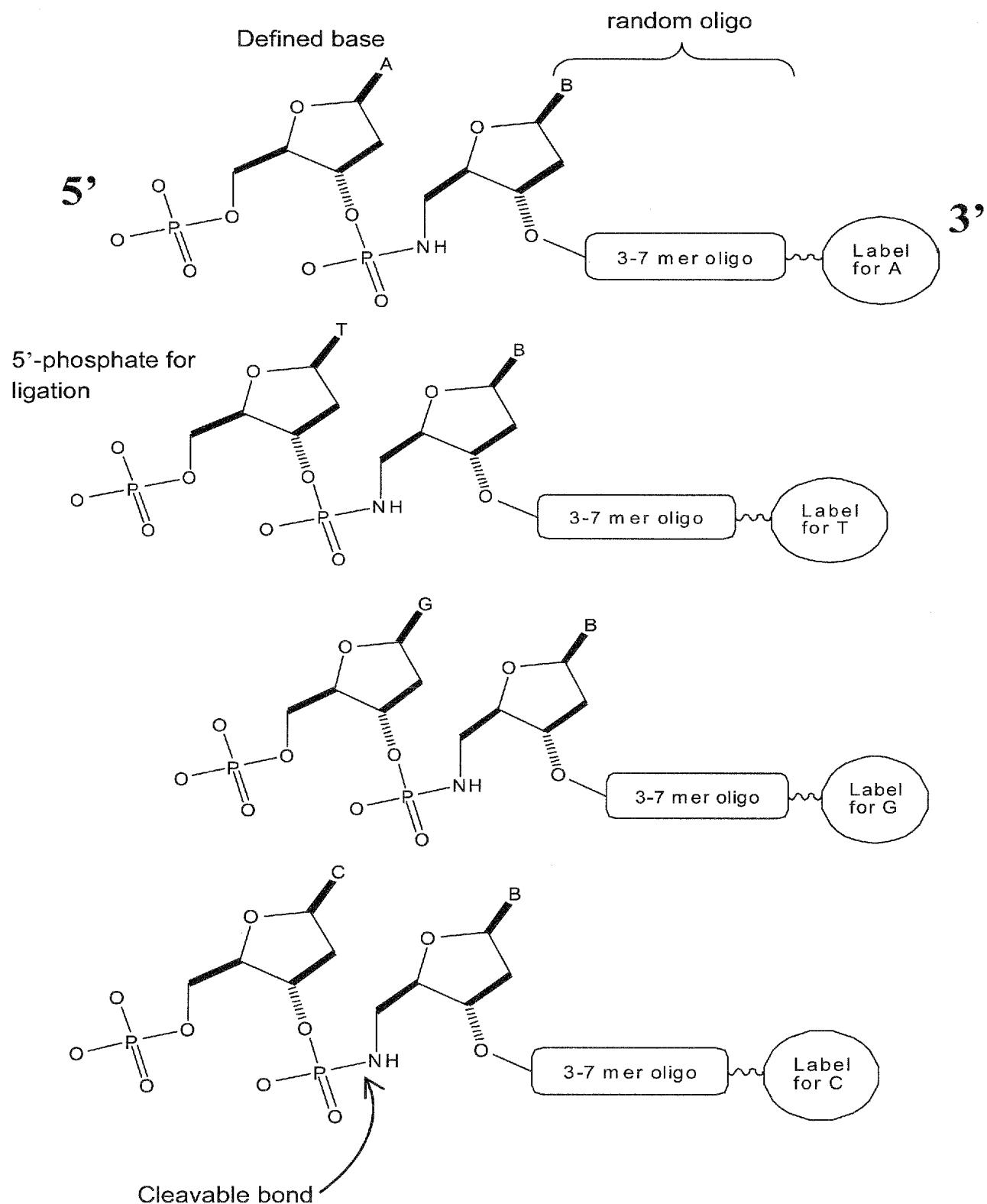
**FIG. 4A****FIG. 4B**

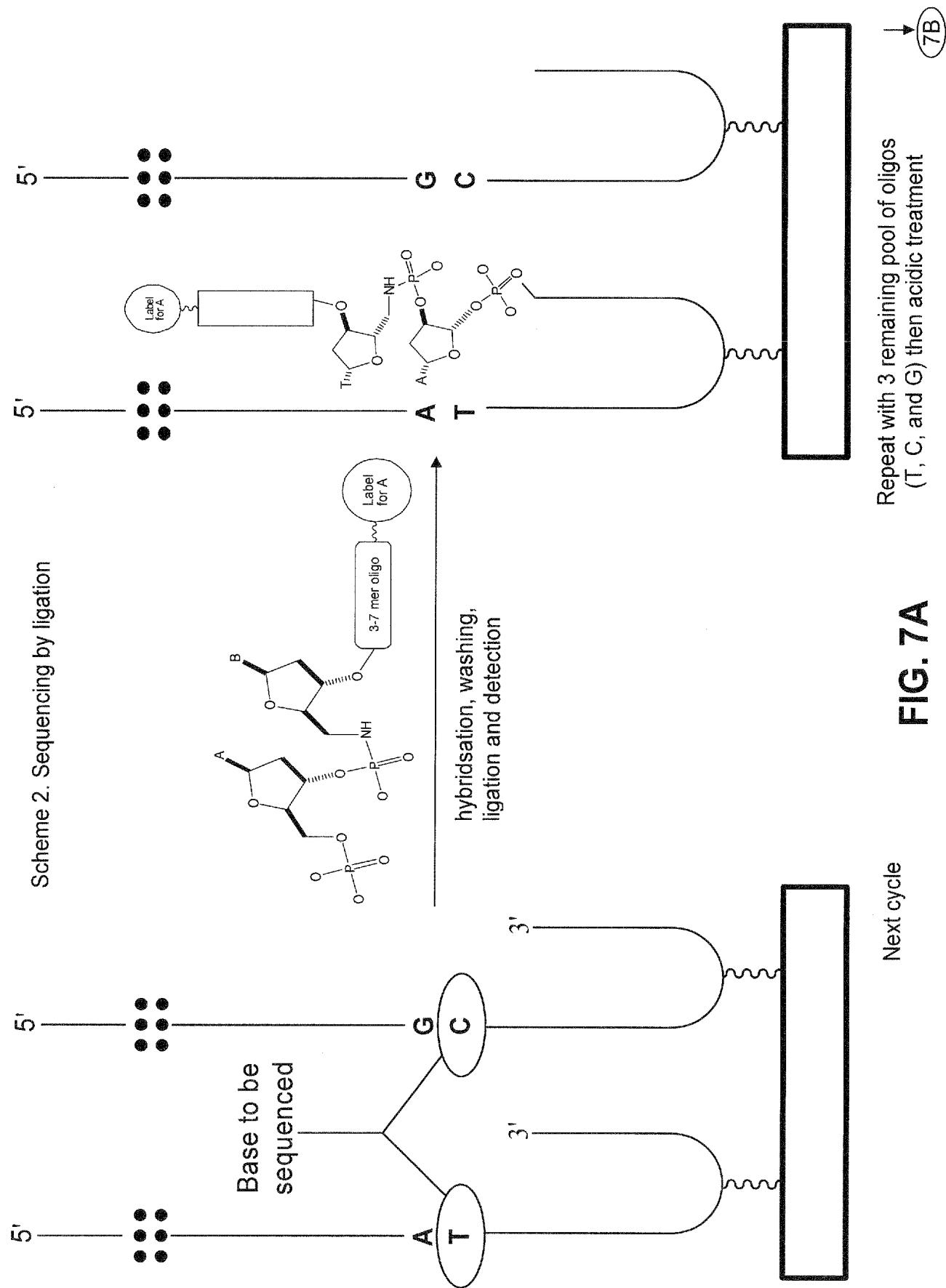
FIG. 5



R = Fluorescent label / terminator
attached via a cleavable bond
to Base or 3' position

Scheme 1, Four groups of chemically synthesised randomised oligos for ligation

**FIG. 6**

**FIG. 7A**

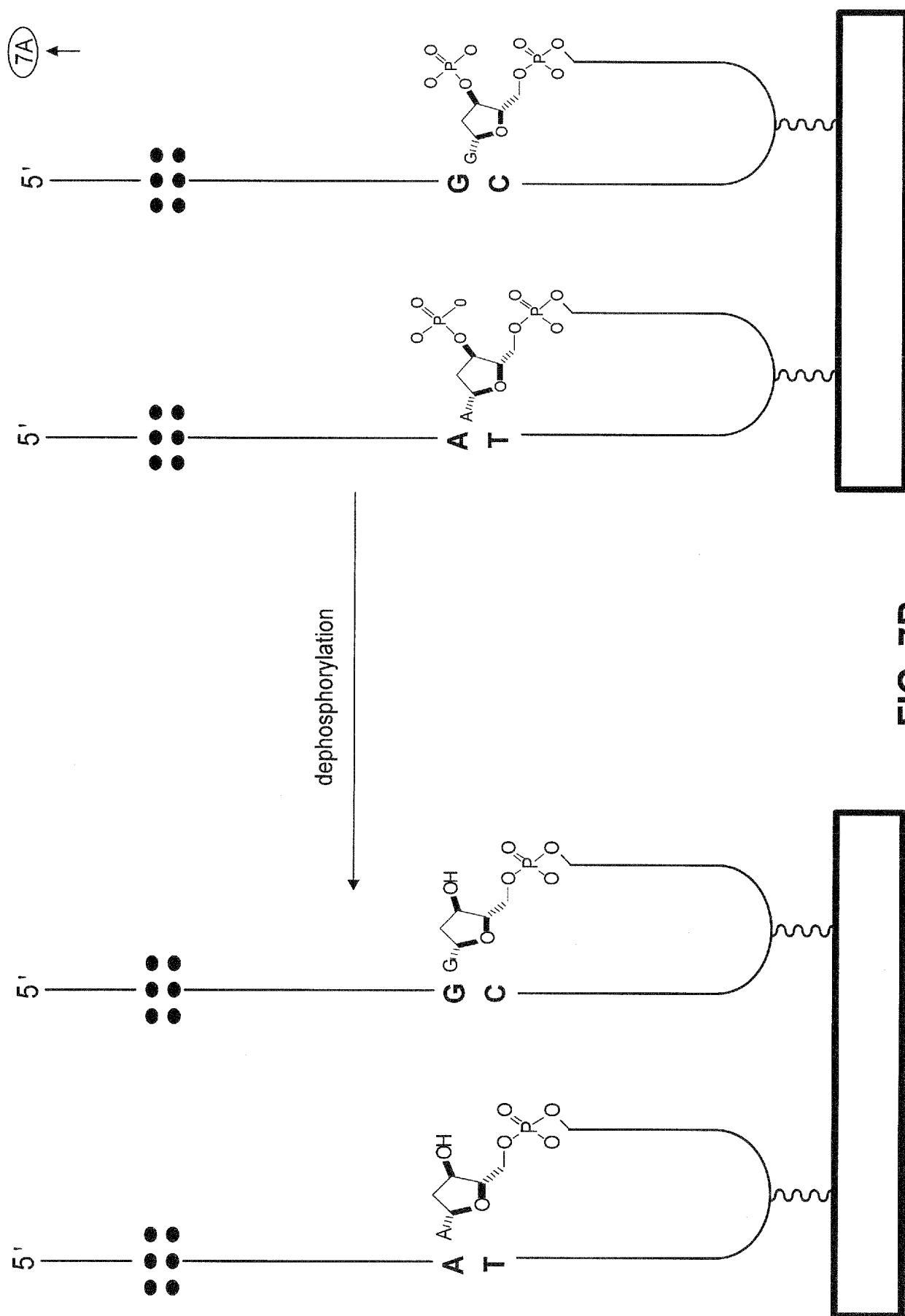
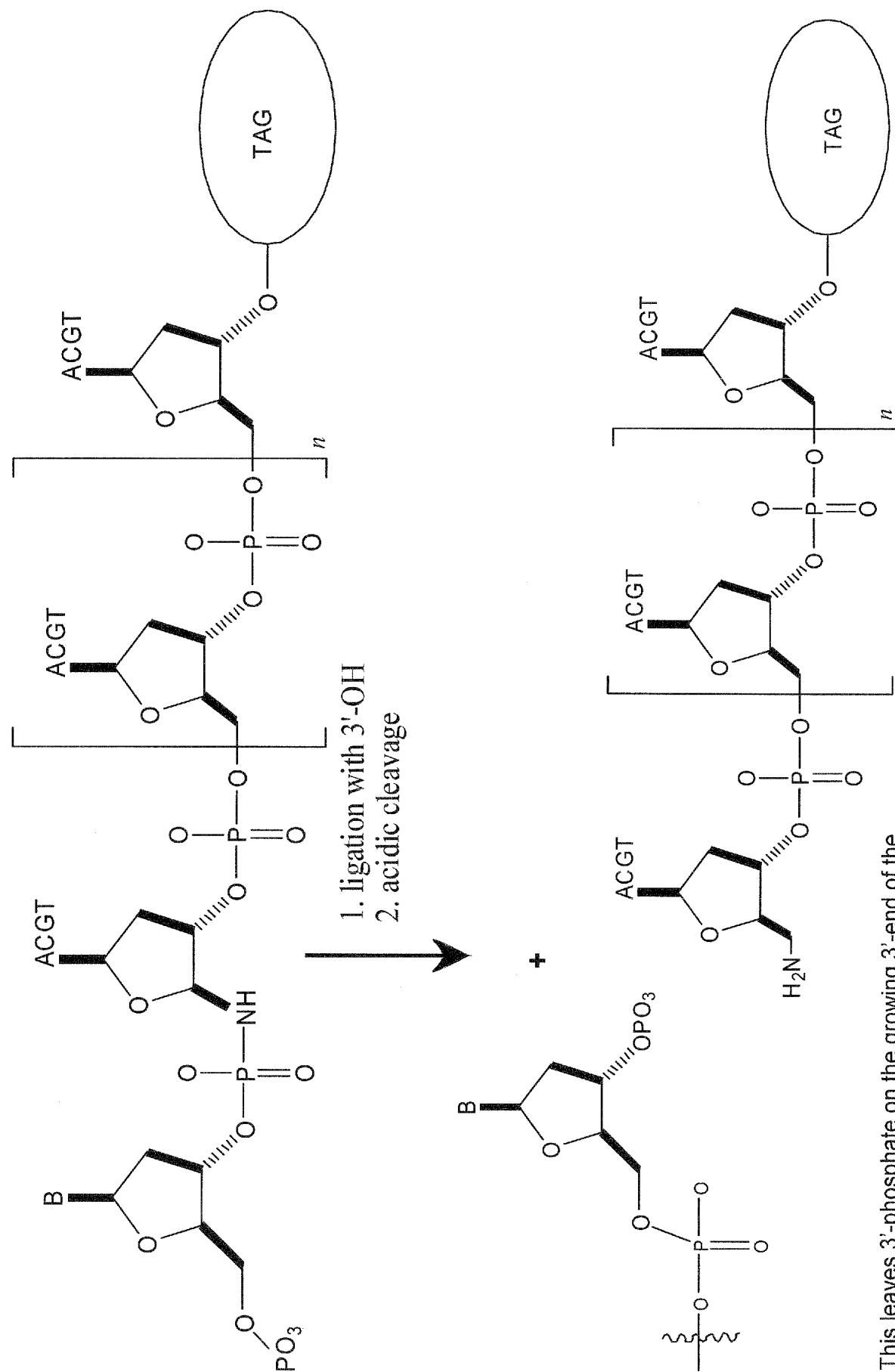


FIG. 7B

**FIG. 8A**

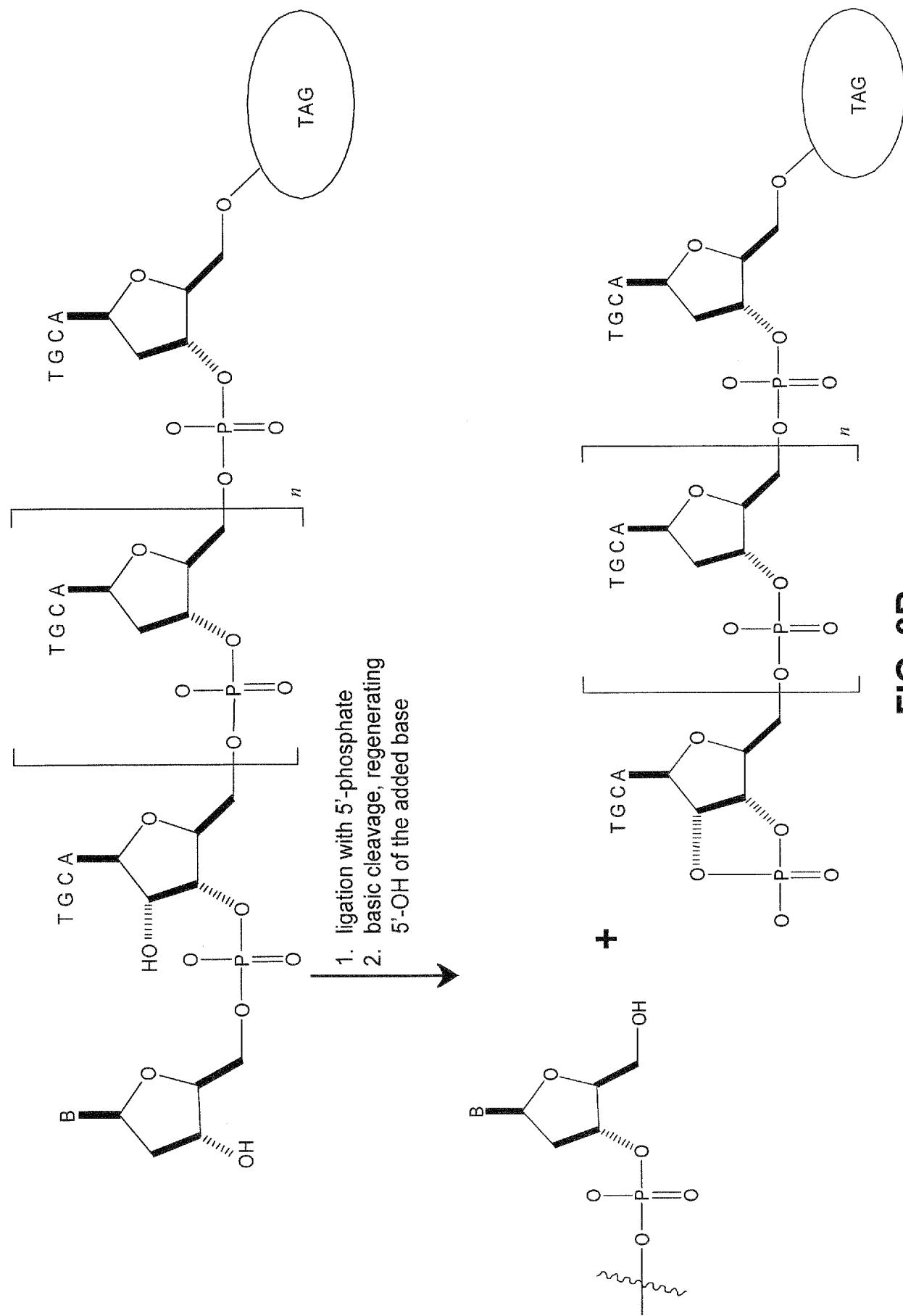


FIG. 9

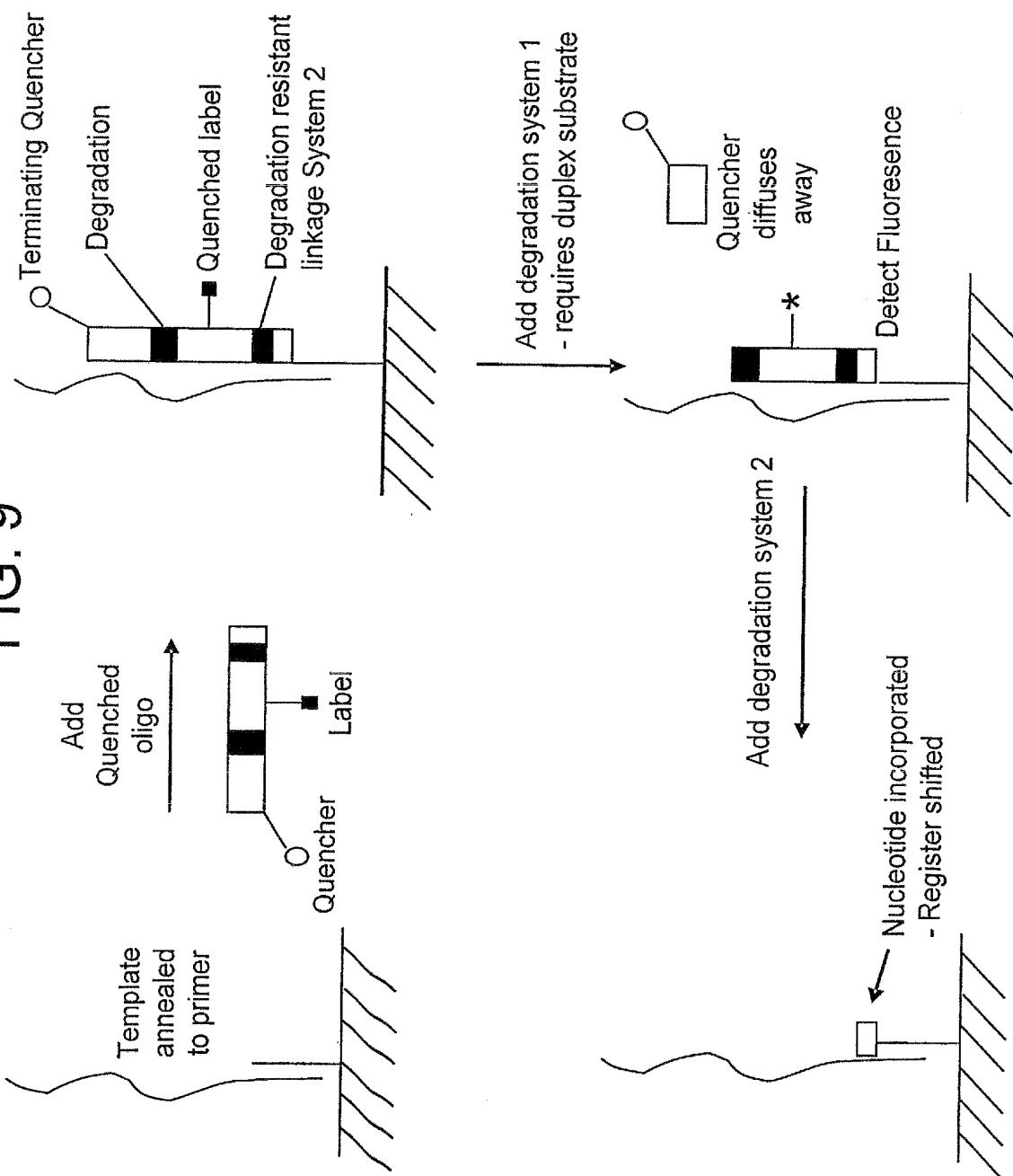


FIG. 10

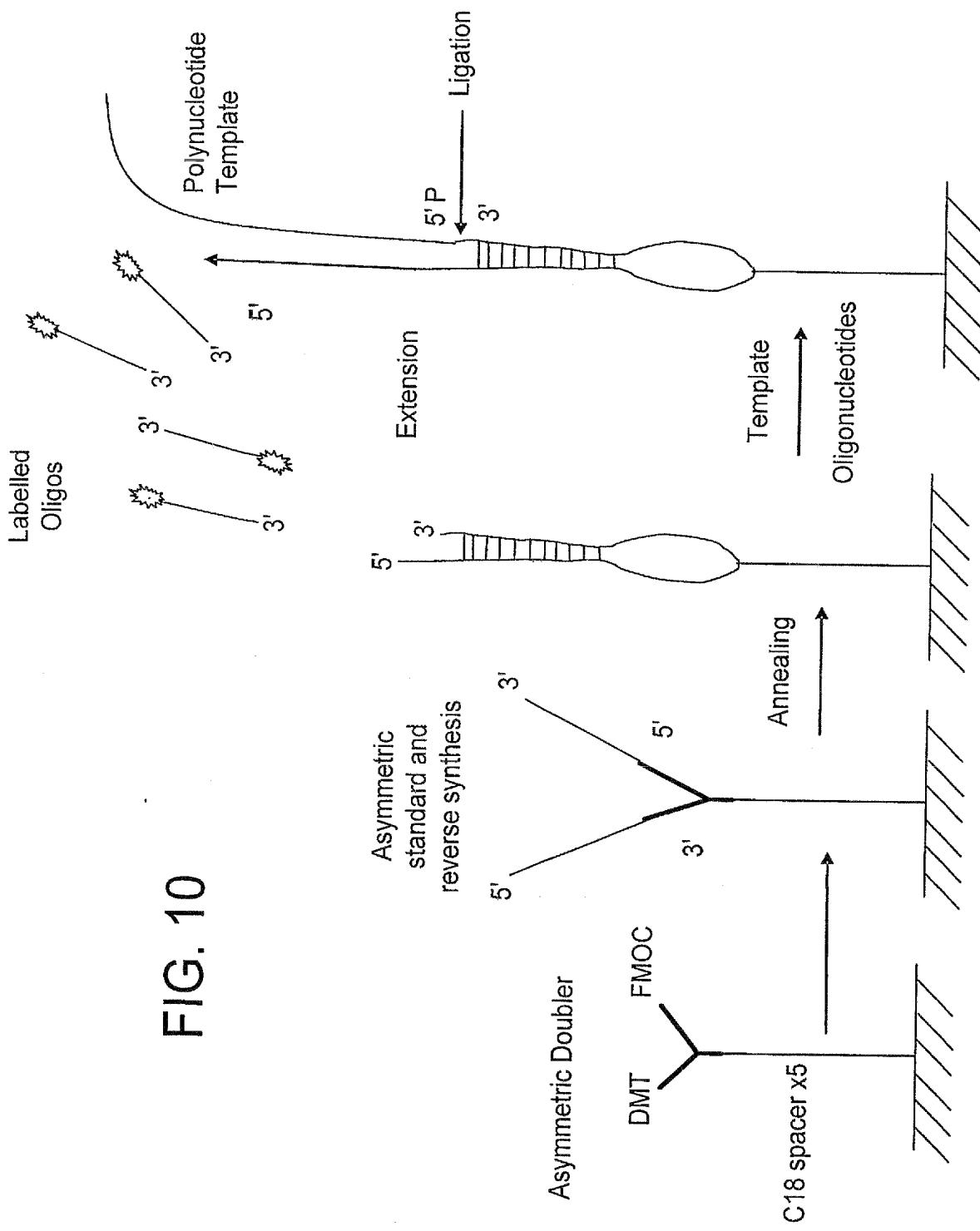


FIG. 11

